

**BEFORE
THE UNITED STATES ENVIRONMENTAL PROTECTION AGENCY**

REPEAL OF CARBON POLLUTION)	
EMISSION GUIDELINES FOR)	DOCKET ID NO.
EXISTING STATIONARY SOURCES:)	EPA-HQ-OAR-2017-0355
ELECTRIC UTILITY GENERATING UNITS)	

**COMMENTS OF
MURRAY ENERGY CORPORATION**

I. INTRODUCTION

Murray Energy Corporation (“Murray Energy”) enthusiastically applauds President Donald J. Trump’s Energy Independence Executive Order 13783, issued March 28, 2017 (“Executive Order”), which directed the United States Environmental Protection Agency (the “U.S. EPA”) to “suspend, revise, or rescind” the Obama Administration’s so-called and illegal Clean Power Plan (“CPP”) and, further, affirms the “national interest to promote clean and safe development of our Nation’s vast energy resources, while at the same time avoiding regulatory burdens that unnecessarily encumber energy production, constrain economic growth, and prevent job creation”. Executive Order 13783, Section 1(a). Specifically, the Executive Order directs all executive departments and agencies, including the U.S. EPA, to “immediately review existing regulations that potentially burden the development or use of domestically produced energy resources and appropriately suspend, revise, or rescind those that unduly burden the development of domestic energy resources beyond the degree necessary to protect the public interest or otherwise comply with the law.” *Id.* Section 1(c). Indeed, the Executive Order specifically directs the U.S. EPA to review and initiate reconsideration proceedings to “suspend, revise, or rescind” the Obama CPP, “as appropriate and consistent with law.” *Id.* Section 4(a)-(c). We strongly support the full and complete repeal of the Obama CPP.

We have been examining these issues for many years, as Murray Energy was the very first party to file a lawsuit challenging the Obama CPP in the case before the federal D.C. Circuit styled *Murray Energy v. U.S. Environmental Protection Agency*, D.C. Circuit Case No. 14-1112. After two (2) years of expensive litigation, Murray Energy was joined by twenty-nine (29) states. The cases were consolidated in the case styled *West Virginia v. U.S. Environmental Protection Agency*, D.C. Circuit Case No. 15-1363. On February 9, 2016, the U.S. Supreme Court stayed implementation of the CPP, pending further judicial review. This was the first time in American history that the U.S. Supreme Court has intervened to stay, or temporarily block, an agency's regulation before a lower court heard legal challenges to it. Accordingly, we were extremely pleased that President Trump issued Executive Order 13783, as it saved us many years of litigation, in which we would have ultimately prevailed, and it helped to protect the jobs and family livelihoods of our coal miners, and low-cost, reliable electricity for all Americans.

On October 16, 2017, the U.S. EPA, pursuant to Executive Order 13783, issued its proposed action (the "CPP Repeal Rule") to repeal the Obama CPP and rescind the documents in the CPP docket titled "Legal Memorandum For Proposed Carbon Pollution Emissions Guidelines for Existing Electric Utility Generating Units" (in the docket for the proposed rule) and "Legal Memorandum for Accompanying Clean Power Plan for Certain Issues," (a supplementary document in the docket for the final rule) (collectively, the "Legal Memorandum"). See Docket Id No. EPA-HQ-OAR-2017-0355; 82 Fed. Reg. 48035.

In this action, the U.S. EPA noted that the EPA promulgated the CPP under section 111 of the Clean Air Act (the "CAA"), 42 U.S.C. 7411. The U.S. EPA asserted that section 111(b) authorizes the EPA to issue nationally applicable new source performance standards limiting air pollution from "new sources" in source categories that cause or contribute to air pollution that

may reasonably be anticipated to endanger public health or welfare. In 2015, U.S. EPA issued such a rule for CO₂ emissions from certain new fossil fuel-fired power plants in light of the U.S. EPA's assessment "that [greenhouse gases] endanger public health, now and in the future". See *Standards of Performance for Greenhouse Gas Emissions from New, Modified, and Reconstructed Stationary Sources: Electric Generating Units*, 80 Fed. Reg. 64510, 64518 (October 23, 2015; *see also* *Endangerment and Cause or Contribute Findings for Greenhouse Gases Under Section 202(a) of the Clean Air Act*, 74 Fed. Reg. 66496 (December 15, 2009) (the "2009 Endangerment Finding"). 82 Fed. Reg. at 48037.

The U.S. EPA, in this action, does not base its proposed repeal of the CPP on rescission of the 2009 Endangerment Finding but on consideration of the statutory text, context and legislative history of CAA section 111. 82 Fed. Reg. at 48043.

Murray Energy enthusiastically supports the U.S. EPA's proposed actions. The U.S. EPA's proposed actions are correct for several fundamental reasons. **First**, the CAA does not authorize the CPP's wholesale transformation of the U.S. electricity grid. *Utility Air Regulatory Group v. EPA*, 134 S. Ct. 2427 (2014). Thus, the agency's proposal is in line with President Donald J. Trump's directives in Executive Order 13783 to review regulations that burden the development of domestic resources such as coal and ensure the environmental regulations comply with law. *See* Executive Order 13783 at Section 2. **Second**, the CPP is categorically foreclosed by the CAA's exclusion for regulating facilities under section 111(d) that are already regulated under section 112. **Third**, the CAA is a program of cooperative federalism, which expressly provides the States—not the U.S. EPA—with the right under section 111(d) to "establish" and "apply" performance standards to existing power plants and to "take into consideration, among other factors, the remaining useful life of the existing source to which [a]

standard [of performance] applies.” 42 U.S.C. § 7411(d)(1). The U.S. Constitution preserves the sovereignty of the States by barring the federal government from compelling them to implement federal policies. The CPP violates this sovereignty by mandating that the States implement U.S. EPA’s decarbonization of the U.S. power system and violates the exclusive jurisdiction of the Federal Energy Regulatory Commission (FERC) under the Federal Power Act. *Finally*, the CAA only provides the U.S. EPA with authority to regulate under section 111 after the agency has made two findings—section 111’s “endangerment” and “significant contribution” findings. But the U.S. EPA has not, and cannot, make such findings to support the CPP as a section 111(d) regulation.

For the same reasons, as well as the fact that they do not accurately reflect the Agency’s current legal positions, the Legal Memoranda should be repealed, not just to the extent they conflict, but in their entirety. These memoranda are inaccurate and do not reflect a proper interpretation of the issues that they describe. There is also no way to clearly distinguish those issues that would remain if they are repealed only to the extent they contradict the Agency’s Proposed Rule.

Finally, EPA requests comment on the impact its Proposed Rule will have in several key policy areas, including whether further problems may exist with the “speak clearly” doctrine, FERC jurisdiction, and traditional state authority to regulate electric power, if EPA adopts the Proposed Rule. Murray Energy supports EPA’s focus on preserving the traditional role of the states and FERC in regulating the electric power sector and in not overstepping its jurisdictional bounds under either the Clean Air Act or the Federal Power Act. While the Proposed Rule takes significant steps toward alleviating specific identified violations of Constitutional, statutory, and regulatory policy, however, adopting the Proposed Rule does not cure all defects with the Clean

Power Plan and would not, on its own, resolve all conflicts a replacement rule would face with these same issues.¹

II. MURRAY ENERGY'S VITAL INTEREST IN THIS ACTION

For more than eight (8) years, Murray Energy has warned of the regulatory rampage that was being illegally waged by the Obama Administration and its supporters against the U.S. coal industry, and particularly of the destruction wrought by the Clean Power Plan. In President Trump, we finally have a President who has vowed to preserve coal jobs and low-cost, reliable and fuel-secure electricity for all Americans, including retirees on fixed incomes, single mothers, and manufacturers who depend on low cost electricity to produce their products. This is why the American people elected President Trump. By issuing Executive Order 13783, President Trump has followed through on his promises, and, by repealing the Obama Clean Power Plan, the U.S. EPA, under the direction of Administrator Pruitt, will take one more step towards fulfilling the promises made to the American people.

Murray Energy has a vital interest in the repeal of the Obama Clean Power Plan. Murray Energy was established in 1988 when Mr. Robert E. Murray mortgaged virtually everything he owned and purchased a single coal mine in Southern Ohio. Thirty years later, Murray Energy is the largest underground coal mining company in the U.S. Moreover, Murray Energy is the largest employer of coal workers in the U.S. in the underground mining industry, with over 5,600 employees. Murray Energy and its subsidiary companies currently operate fifteen (15) coal

¹ On December 28, 2017, the U.S. EPA issued its Advance Notice of Proposed Rulemaking (ANPRM) seeking public comment in its consideration of proposed emission guidelines to limit greenhouse gas (GHG) emissions from existing electric generating units (EGUs) (the proposed "CPP Replacement Rule"). Docket Id. No. EPA-HQ-OAR-2017-0545; 82 Fed. Reg. 61507. Murray Energy has filed comments in Docket Id. No. EPA-HQ-OAR-2017-0545 opposing any consideration of a new CPP rule absent a clear Congressional grant of authority and based in any degree, on the illegal and technically flawed 2009 Endangerment Finding.

mines, consisting of eleven (11) underground longwall mining systems and forty-six (46) continuous mining units in Ohio, Illinois, Kentucky, Utah, and West Virginia. In addition, Murray Energy operates two surface mines in Colombia. Murray Energy produces approximately 75 million tons of bituminous coal each year. It supplies coal to many of the largest coal-fired electric utility generating facilities in the United States.

Murray Energy is also engaged in related business operations and activities, including owning and operating four mining equipment manufacturing and rebuild facilities along with a number of river, truck and rail terminals, and twenty-five river towboats and over 500 coal barges on the inland waterway system. Many of Murray Energy's mining complexes are strategically located near its customers' electric generating stations, and all have excellent, low cost transportation infrastructures to Murray Energy's markets. The vast majority of the coal produced from Murray Energy's mines in the U.S. is used for the generation of electricity. Murray Energy is dependent on the continuing viability and operation of coal-fired generation in the U.S.. Unless fully repealed, the Obama Clean Power Plan would force many of these coal-fired power plants to close, destroying the jobs and livelihoods for thousands of coal mining families and related industries.

Given the current threats to coal-fired generation, Murray Energy, along with other coal producers and related industries, and numerous generating companies and electric utilities, is threatened with bankruptcy and significant economic harm if coal capacity is forced out of the market by unreasonable and unsupportable regulations. Prior to the election of President Obama, fifty-two percent (52%) of America's electricity was generated from coal, and this rate was much higher in the Midwest. The percentage of coal-fired generation declined under the Obama Administration to thirty percent (30%). Under the Obama Administration, over 531 coal-fired

generating plants, or 59,000 megawatts of generating capacity through 2016, were closed prematurely, many as a result of new and potential regulations that were put into place illegally, without proper cost analysis, and without proven environmental benefits. Further, an additional 12,700 megawatts of coal fired-generation will be closed by the end of 2020, bringing coal's share of electricity to as low as twenty-seven percent (27%). These closures are the functional equivalent of entirely eliminating the combined electricity supplies of Ohio, Pennsylvania, Indiana, and West Virginia. In the PJM Interconnection, LLC ("PJM") footprint alone, which covers all or part of thirteen (13) states and sixty-five (65) million people, 11,000 megawatts of coal-fired electricity generation has been closed over the past four (4) years. In addition, 20,056 megawatts of this baseload capacity in PJM is contemplated for closure.

This devastation has had far-reaching consequences. By early 2016, the total value of the American coal industry had declined from \$68.8 billion five years before to \$4.08 billion, a ninety-four percent (94%) reduction in value. A total of fifty-two (52) coal companies were in bankruptcy proceedings with only four (4) major companies remaining financially solvent. Local rural communities in coal producing regions, and in areas that depend on coal-fired power plants, are losing jobs and millions of dollars in local tax support due to the closure of coal-fired generation plants. This devastates the residents and the employees supporting local businesses, governments, and school districts. Now is the time to end this catastrophic destruction wrought by the Obama Administration's "War On Coal".

Fortunately, President Trump's Executive Order of March 31, 2017 is already having a positive impact in coal communities. Indeed, this action alone stopped fifty-six (56) more coal-fired plant closures, totaling 53,000 megawatts of generation, and the layoff of 25,000 more coal miners on top of the 63,000 families already laid off under the Obama Administration. Far more

must be done, however, for our communities to recover from the devastation of the past eight (8) years.

**III. CONTINUED OPERATION OF
AMERICA'S COAL-FIRED ELECTRICITY
GENERATION FLEET IS ABSOLUTELY
VITAL TO ENSURING RELIABLE, EFFICIENT
AND COST-EFFECTIVE SUPPLIES OF
ELECTRICITY TO THE NATION.**

President Trump's Executive Order 13783 is far reaching, directing all executive departments and agencies to "immediately review existing regulations that potentially burden the development or use of domestically produced energy resources and appropriately suspend, revise, or rescind those that unduly burden the development of domestic energy resources beyond the degree necessary to protect the public interest or otherwise comply with the law." Executive Order 13783, Section 1(c).

America enjoys an abundant resource of proven coal reserves. Coal is a critical component of America's energy resources and continued operation of America's coal-fired electricity generation fleet is absolutely vital to ensuring reliable, efficient and cost-effective supplies of electricity to the nation.

For over a century, coal-fired generation has been the safe, reliable, low-cost, and fuel-secure source of electricity in America, providing the baseload generation, as well as the capacity, reserve, and ancillary services that are absolutely necessary to maintain the integrity and reliability of our Nation's power grids. The historical fleet of coal-fired generating units, particularly in the Midwest, has served the economy well, providing as much as eighty to ninety percent (80 - 90%) of in-state generation in many states over the years. Coal-fired generation has also served the commercial, manufacturing and industrial sectors of this Country, providing

low-cost, reliable, high capacity and peak demand services that are absolutely necessary for American manufacturers to operate and to compete in the global marketplace.

Over the years, coal-fired generation has been less susceptible than other sources to both short-term and long-term fuel price variation and supply. Coal-fired generation has been the constant through the years of the Arab oil embargo, the natural gas shortages of the 1970's and 1980's, the ensuing volatility in natural gas prices thereafter, nuclear power regulatory challenges, and extreme weather conditions, most recently the 2014 Polar Vortex and 2018 Bomb Cyclones.

There is no better illustration of the need to protect baseload generation than the so-called "Bomb Cyclone," which immersed the eastern United States in extremely cold, windy conditions from December 27, 2017 through January 8, 2018. Notwithstanding that this cold snap occurred primarily over the holidays, at least two (2) million Americans lost their power, and, tragically, twenty-two (22) people lost their lives. Without the electricity provided by our coal-fired and nuclear power plants, the devastation of this very short twelve (12) day Bomb Cyclone would have been far worse.

The United States Department of Energy's National Energy Technology Laboratory recently issued a report ("Government Study") analyzing the reliability and resiliency of different sources of electricity generation during the Bomb Cyclone. The Government Study confirmed what many of us have already known, that coal was the single most reliable and resilient form of electricity production during that critical time. Coal and nuclear power provided eighty-nine percent (89%) of the electricity during this Bomb Cyclone. During this time coal-fired generation averaged an output level of 46,038 megawatts, over fifty percent (50%) greater than the average of 29,849 megawatts. Indeed, if it were not for the electricity generated by our Nation's coal-fired

power plants, with ample capacity and on-site fuel availability, the grids would have experienced a massive nine (9) to eighteen (18) gigawatts of shortfall, leading to system collapse.

During this cold snap, coal far outperformed all other fuel sources, particularly natural gas and renewables. At least 37,000 megawatts of supposedly available natural gas-powered electricity was entirely unavailable due to the priority for home heating use and frozen natural gas pipelines. Where natural gas was available, prices peaked at over \$95 per million BTU in the PJM, and over \$175 per million BTU in New York City, which is sixty (60) times the normal cost. Also, during this time, the cost of electric power from natural gas-fired plants peaked at over \$500 per megawatt hour, compared to a predominant rate of about \$28 per megawatt hour. The ISO New England regional transmission organization has confirmed that their region is at major risk of fuel insecurity, due to New England's dependence on natural gas and the retirement of coal and nuclear generating capacity.

Similarly, windmills and solar panels contributed virtually nothing to our Country's electricity needs at that dire time, as cloud cover and wind speeds caused these resources to be unable to dispatch. The Government Study concluded that wind energy was down twelve-percent (12%) across the eastern United States. When considered together, wind and solar electricity generation declined nineteen percent (19%) in Midcontinent Independent System Operator ("MISO"), twenty-nine percent (29%) in Southwest Power Pool ("SPP") and thirty-two percent (32%) in Electric Reliability Council of Texas ("ERCOT"). Fortunately, coal-fired electricity was able to step up and to fill the void for seventy-four percent (74%) of this incremental lost generation.

The Government Study valued the resilience provided by coal at \$3.5 billion in the PJM alone, which equates to \$288 million per day. PJM's President and CEO, Mr. Andrew Ott, recently stated that 1,410 megawatts of nuclear capacity and 3,688 megawatts of coal-fired capacity that operated during the recent cold snap in the eastern United States are scheduled to be deactivated within the next five (5) years.

These problems from the recent cold snap were not an isolated incident. During the so-called "Polar Vortex" of early 2014, PJM came within 500 megawatts of a major system disruption on a demand of 140,000 megawatts. A total of 9,300 megawatts of supposedly available natural gas-fired generation was not available due to gas supply disruptions to the generators. Further, the cost of producing electricity in the Midwest and Mid-Atlantic area rose above \$1,000 per megawatt-hour for the first time in American history.

During this time, an Ohio-based electric power company was ordered by the State's Public Utility Commission to be connected to 3,800 megawatts of wind and solar power. Only fifteen (15) megawatts of the 3,800 megawatts were available during the crisis. What the utility relied on during the cold snap was 8,170 megawatts of coal-fired generation. As all 8,170 megawatts have been closed, what will happen next time?

The recent Bomb Cyclone and 2014 Polar Vortex demonstrate that our electric power grids are not as reliable as the independent power grid operators, some electric utilities, and the Federal Energy Regulatory Commission ("FERC") claim. Indeed, we have a power grid reliability and resiliency crisis in much of America. But, will a system collapse occur before they recognize and do something about it?

During the 2018 Bomb Cyclones, the consequence of lack of fuel diversity was seen in New England ISO (NE ISO) pricing. Comparing the first half of January 2018 to the first half of January 2017, natural gas prices (Algonquin hub) were up from an average of \$5.60 per MMBtu in 2017 to \$22.78 per MMBtu in 2018, a 307 percent increase. Power prices (Mass Hub) were up from an average of \$41.80 per megawatt-hour to \$147.74 per megawatt-hour, a 253 percent increase. Also relevant was the over 7000 percent increase in use of oil for power generation as a result of supply constraints on natural gas due to the lack of storage and pipeline capacity. Dual fuel gas and oil plants had to switch to oil to meet load. Pricing was also up in PJM West, which had an average energy price of \$119.53 per megawatt-hour in the first half of January 2018. The average energy price and price increases were higher in NE ISO than PJM West because the coal generation in PJM increased by about 10 percent in the first half of January 2018 which significantly reduced the increased generation required from oil. There is no question that had it not been for the coal capacity in PJM, MISO and elsewhere the power prices would have been significantly higher.

Renewable energy sources are not a viable or credible alternative to baseload coal-fired generation. Wind and solar generation sources are intermittent and unreliable and therefore cannot be relied upon to meet peak or base load demand. Without the price support provided by the Wind Production Tax Credit, wind generation will be a high cost resource. Natural gas-fired generation is not the answer either, as gas pricing is volatile and gas supply is unreliable given limited gas storage capacity, pipeline limitations and a requirement to meet residential and commercial customer requirements ahead of power generation. The high power prices during the 2018 Bomb Cyclones in certain regions were due to gas to oil switching in many of the dual fuel units due to insufficient gas delivery capability.

The Obama CPP drastically distorts the electricity grid by forcing power plants effectively to dispatch based upon carbon emissions rather than cost. As a result, lower cost coal generation will be impaired at the expense of higher cost generation from natural gas and renewables. The cost impacts will be magnified to the extent low cost coal plants are forced to retire, leaving only high cost generation available to meet demand.

A recent study performed by the leading global economic consulting firm, IHS-Markit concludes that, on a going forward basis (excluding sunk costs), the costs of continuing to operate many recently-retired coal-fired plants is significantly lower than the long-term marginal cost of building new generation.² In some instances, on a properly-calculated apples-to-apples basis, the cost of electricity generated by a newly-constructed power plant may be approximately twice that of a baseload coal or nuclear plant that has recently retired.³

The fact that utilities would be required to close coal power plants that generate electricity much more cost effectively than alternative new generation to meet the CPP requirements is a fatal flaw of the Obama CPP. Furthermore, baseload coal and nuclear plants typically operate at high capacity factors, have stable operating costs in part because fuel can be purchased under long-term contracts with fixed pricing. As such, coal plants are valuable assets which limit exposure to price spikes, keep electricity costs at reasonable levels and historically have been the backbone of the operation of the grid. From an economic standpoint, it seldom should make sense to shut down these generating units, especially since, once shut down, these generating units are permanently lost. Yet that is precisely what is occurring today.⁴

² IHS Markit, *Ensuring Resilient and Efficient Electricity Generation: The Value of the current diverse US power supply portfolio*, at p. 8 (Sept. 2017) (hereinafter, "IHS Study").

³ IHS Study at 36.

⁴ Many of the companies that historically have been leaders in electric generation, such as AEP, Duke, NRG and Calpine, have announced that, except for generating units supported by long-term Purchase Power Agreements, they will no longer build new merchant generation and, in several instances, are liquidating their entire merchant generation portfolio. This is reducing the number of experienced players interested in continuing to own and operate generation.

A related problem that will worsen with further retirements of baseload coal and nuclear will be the increased frequency, severity, and duration of price spikes that will arise with increased dependence upon natural gas. In particular, during the past several years the ability of grid operators to shift back and forth between natural gas-fired generation and coal-fired generation has played an increasingly critical role in managing price volatility. When gas prices rise, coal generation increases; when gas prices fall, coal generation declines. With additional coal plant retirements, however, the ability to reduce gas use by increasing use of coal-fired capacity declines, reducing the amount of available fuel switching by a startling 11 BCF/day in the past six years.⁵ As a result, natural gas price increases are expected as coal generation is not available to cap gas demand and price.

Further, the reduced potential for fuel switching is not the only change that is occurring that could cause adverse volatility and price spikes. LNG exports from the U.S. began in earnest in 2016 with the completion of the Sabine Pass facility which reached 2 billion cubic feet per day (BCFD) by year end. Another six plus BCFD of LNG capacity is under construction and 13.5 BCFD of LNG capacity is in advanced development.⁶ As exports of LNG grow, natural gas pricing is expected to increasingly be affected by the global price, thereby increasing volatility and making it even more important to keep existing coal-fired units online in order to maximize the availability of fuel switching.

IHS calculates that retirement to the existing coal and nuclear generation capacity would result in an increase of retail power prices by about 25 percent and net consumer costs by about

In addition, negative energy prices primarily as a result of wind production tax credits are becoming increasingly prevalent, with crushing impacts on every type of base load.

⁵ ABB. Actual and Projected Coal Capacity Retirements in the United States, 2011-2020, Ventyx Database, October 18, 2017.

⁶ EVA, Quarterly LNG Outlook, December 2017.

\$98 billion per year.⁷ Therefore, failure to maintain the resource diversity by prematurely retiring nuclear (and coal) baseload units could, extrapolating over the next 20 years, increase electricity costs by as much as \$2 trillion. These effects are magnified further as soaring electricity costs ripple through the broad economy, with large adverse impacts over the three year period on U.S. GDP (a loss of 0.8%), on real disposable income (a drop of about \$845 per household in 2016 dollars), and jobs (a loss of 1 million).⁸

IV. COMMENTS IN RESPONSE TO PROPOSED ACTION

A. The CPP Exceeds The Authority Granted to U.S. EPA Under Section 111 of the CAA.

The Obama CPP requires States to adopt standards of performance that cannot be met by fossil fuel-fired generation sources under current state-of-the-art technology. Thus, the purpose of the CPP's standards of performance is to require fossil fuel-fired generation sources to transfer their generation to non-fossil fuel generation facilities. However, that illegally-compelled generation shifting is precluded by the unambiguous language and clear structure of section 111 of the CAA.

In this proposed action to repeal the CPP, the U.S. EPA correctly concludes that a proper construction of section 111(a)(1) of the CAA is limited to emission restriction measures that can be *applied to or at* an individual stationary source and does not authorize generation shifting to alternate sources.

After reconsidering the statutory text, context, and legislative history, and in consideration of the EPA's historical practice in its other existing CAA section 111 regulations, the Agency proposes to return to a reading of CAA section 111(a)(1) (and its constituent term, "best system of emission reduction") as being limited to emission restrictions that can be *applied to or at* an individual stationary source. That is, such measures must be based on a physical or

⁷ IHS Study at 5, 37-38.

⁸ HIS Study at 5, 39.

operational change to a building, structure, facility, or installation at that source, rather than measures that the source's owner or operator *can implement on behalf of* the source, at another location. 82 Fed. Reg. at 48039.

The U.S. EPA properly concludes that this interpretation accords with section 111, aligns with Congressional intent, aligns with prior agency interpretations of section 111, avoids illogical results and avoids conflict with the State's sovereign rights. 82 Fed. Reg. at 48039. The U.S. EPA also properly concludes that this interpretation requires immediate repeal of the Clean Power Plan. *Id.* at 48038.

Under section 111(d) of the CAA, U.S. EPA's role is to establish a procedure for States to submit plans establishing standards of performance *for any existing source*. CAA section 111(d)(1). State plans, in turn, must apply a standard of performance to any *particular source*. *Id.* The CAA defines a "stationary source" as "any building, structure, facility, or installation which emits or may emit any air pollutant." CAA § 111(a)(3). Thus, section 111(d) permits U.S. EPA to require the States to establish performance standards only for the facility whose emissions are being controlled. Requiring an owner or operator of a fossil fuel-fired source to construct, or to subsidize generation at other facilities, as the CPP does, is not a standard *for* that existing source at all.

Further, U.S. EPA's previous application of the "standards of performance" to multiple, combined sources at the level of an entire "source category" as opposed to the individual sources at "single source" level, also directly contravenes the express requirements of CAA section 111. Section 111 clearly provides for EPA to "list" source categories and then, where section 111(d) applies, requires the States to set "standards of performance *for any existing source*" within a source category. By applying emission performance standards to require the shifting of generation from existing fossil-fuel fired sources (one source category) to renewable generation

facilities (a *different* source category), the U.S. EPA went well-beyond even its professed single “source category” application of performance standards. In actuality, U.S. EPA is applying the CAA performance standards across *multiple* sources in *multiple* source categories. There is absolutely no basis for this application of the performance standards to multiple source categories under existing law. U.S. EPA may not “embellish” the statutory definition of “stationary source” by “rewrite[ing] the definition of a stationary source.” *ASARCO Inc. v. EPA*, 578 F.2d 319, 324, 326 n.24 (D.C. Cir. 1978).

The U.S. EPA correctly concludes in this action that section 111(d) requires that standards must be set for individual sources.

The EPA’s proposed interpretation is also guided by CAA section 111(d)’s direction that standards be established “for any existing source,” (emphasis added) and not for other sources or entities. See also 42 U.S.E. 7401(a)(3) (finding that “air pollution control at its source is the primary responsibility of State and local governments”) (emphasis added). Further, the “for any existing source” phasing in CAA section 111(d) mirrors the “for new sources” phasing in the first sentence of section 111(b)(1)(B). In other words, as applied to both new source standards and existing source standards promulgated under CAA section 111, if standards must be set for individual sources, it is reasonable to expect that such standards would be predicated as measures that can be applied to or at those same individual sources. 82 Fed. Reg. at 48039.

Finally, U.S. EPA also unlawfully redefines a CAA-defined “source” to “include . . . the ‘owner or operator’ of any building . . . for which a standard of performance is applicable.” 80 Fed. Reg. at 64,762. Again, section 111 performance standards apply to a “source,” not to the “owners and operator” of that statutorily-defined source. CAA § 111(a)(3). A “source” is *not* defined to include the “owner or operator” of the “building, structure, facility, or installation.” Indeed, section 111(a)(5) separately defines the term “owner or operator” to mean “any *person* who owns, leases, operates, controls, or supervises a stationary *source*”. Had Congress intended

to include a facility's owner or operator within the term "source," it would not have separately defined these diverse and mutually-exclusive terms.

Again, the U.S. EPA in the proposed action to repeal the Obama CPP correctly concludes that emissions limits apply to the *source*, not to the owner or operator of the source.

. . . Here, contrary to the conclusions in the CPP, the EPA is proposing to interpret the phrase "through the application of the best system of emission reduction" as requiring that the BSER be something that can be applied to or at the source and not something that the source's owner or operator can implement on behalf of the source at another location. Interpreting the statute as carrying this additional limiting principle ensures conformity with the statutory context and congressional intent. 82 Fed. Reg. at 48039.

Under section 111(d), U.S. EPA must show that Congress clearly authorized the agency to restructure power markets. The CPP's attempt to reconfigure the sources of generation for the power grid is precisely the sort of significant and transformative assertion of authority that, under the Supreme Court's decisions, requires "clear congressional authorization." *Util. Air Regulatory Grp. V. EPA*, 134 S. Ct. 2427, 2444 (2014) ("UARG"). The clear congressional statement rule applies with particular force here where U.S. EPA has "no expertise" in the subject matter so as to justify *Chevron* deference to its unprecedented assumption of authority under the CPP. "[G]rid reliability is not a subject of the Clean Air Act and is not the province of EPA." *Del. Dep't of Nat. Res. & Env'tl. Control v. EPA*, 785 F.3d 1, 18 (D.C. Cir. 2015). Congress did not delegate to U.S. EPA the authority to reconfigure the entire grid to lower overall emissions while maintaining reliable and low-cost generation.

The "clear congressional statement" requirement is fatal to the CPP. There is no plausible claim that Congress in section 111(d) authorized U.S. EPA to set emission performance rates on the basis that the owners of existing fossil fuel-fired sources would be required to meet

the rates by transferring generation to lower-emitting generation to displace their own generation.

In sum, the unambiguous CAA section 111 requirement that standards of performance must be set “*for*” and be “*applicable . . . to*” individual sources forecloses U.S. EPA’s claim to authority to enforce CPP compliance by reordering electric generation from one source to another source within a State’s grid. CAA sections 111(d)(1), 111(a)(2) (emphasis added). “Generation shifting” does not entail setting standards that are “for” or “applicable” to operations within individual, regulated sources. Rather, it involves replacing or reducing the generation of individual regulated sources in *a particular* generation category with the generation of entirely different kinds of facilities in *a different* generation category. That unilateral redistribution of electric generation is plainly beyond what CAA section 111 permits. Murray Energy therefore fully supports the U.S. EPA’s proposal to repeal the CPP.

The reasons set forth in this action, however, are not the only grounds on which the CPP violates section 111. The CPP also violates section 111 in that it mandates that a regulated source cease producing electricity, rather than addressing how the regulated source is to reduce emissions while continuing to produce electricity at that existing source. A CAA “standard of performance” is a measure by which to regulate the operation of a source, not an order to cease the operation of a source. A CAA “standard of performance” must reflect reductions from an “emission limitation,” which in turn must “limit . . . the quantity, rate, or concentration of emissions of air pollutants *on a continuous [i.e., operating] basis.*” CAA section 302(k) (emphasis added). As Congress made clear, the terms “standard of performance” and “emission limitation” are defined to preclude performance rates based on “intermittent controls,” such as cutting or shifting production to other facilities. *Id.* sections 111(a)(1), 302(k). The CPP is thus

directly contrary to the CAA's central premise that a "standard of performance" apply to a generation source and should be repealed for this reason as well.

In addition, as U.S. EPA notes, the CPP established standards that were more stringent for existing sources than for new or newly-modified sources, either under BACT or EPA's 111(b) standards. *See* 82 Fed. Reg. at 48041; *Id.* at 48041, n.16. EPA cites these errors in legal interpretation as grounds for reversing the agency's prior position that imposition of requirements beyond the source itself, such as requiring generation shifting, cannot be the basis for an existing source performance standard. *See Id.* at 48042. This is correct, but not the only necessary conclusion from EPA's analysis. These conclusions are also independent grounds for repeal of the CPP. An existing source performance standard that is more stringent than the standards applicable to new sources is arbitrary and capricious, regardless of whether it includes regulation beyond the source itself or requires generation shifting.

B. The CAA Section 112 Exclusion Unambiguously Prohibits the CPP.

The CAA section 112 Exclusion prohibits U.S. EPA from employing section 111(d) to regulate a source category that is already regulated under section 112. And because it is undisputed that fossil fuel-fired generating units are already regulated under section 112, *see* 77 Fed. Reg. 9304 (Feb. 16, 2012), the section 112 Exclusion prohibits any attempt by the U.S. EPA to invoke section 111(d) to re-regulate those same plants.

The section 112 Exclusion's prohibition against employing section 111 to regulate "any air pollutant" emitted from a "source category . . . regulated under section [1]12" has a straightforward and unambiguous meaning. If a source category is "governed by [a] rule" under section 112, U.S. EPA may not require the States to set a standard of performance for sources in that category under section 111(d). As the Supreme Court has said, "EPA may not employ

[section 111(d)] if existing stationary sources of the pollutant in question are regulated under . . . § [1]12.” *Am. Elec. Power Co. v. Connecticut*, 131 S. Ct. 2527, 2537 n.7 (2011) (“AEP”).

This literal reading of the section 112 Exclusion is, as U.S. EPA itself has explained, consistent with the statutory and legislative history of the CAA’s 1990 Amendments. Before 1990, section 112 covered an extremely narrow category of life-threatening pollutants. *See* S. Rep. No. 91-1196, at 20 (1970). In 1990, Congress expanded the reach of the section 112 program, significantly broadening the definition of pollutants under section 112 to include those “which present, or may present . . . a threat of adverse human health effects . . . or adverse environmental effects,” CAA § 112(b)(2). As U.S. EPA has said in the past, the House of Representatives (where the current text of the section 112 Exclusion originated) responded to this fundamental expansion in section 112 by “chang[ing] the focus of [the Exclusion and] seeking to preclude regulation of those pollutants that are emitted from a particular source category that is actually regulated under section 112.” 70 Fed. Reg. at 16,031. That is, the House determined that existing sources, which have significant capital investments and sunk costs, should not be burdened by *both* the expanded section 112 program and performance standards under section 111(d). *Id.* at 16,031-32.

Because the U.S. EPA has already regulated fossil fuel-fired EGUs under CAA section 112, the section 112 Exclusion barred promulgation of the CPP and prohibits any replacement rule. As part of its final CPP repeal, U.S. EPA should rest its rule upon this ground in addition to the defensible and common-sense logic already set out in the proposal and the other grounds set forth in these comments. While the proposal clearly sets forth sufficient grounds for repealing the CPP, the U.S. EPA must include this additional (and broader) ground for repeal because the section 112 Exclusion supports that the CPP promulgation fell outside of United States policy

that “environmental regulations comply with the law.” Executive Order 13783, at Section 1(e). In order to fully comply with the executive order, the U.S. EPA needs to address the illegal interpretation of the CAA (in violation of the section 112 Exclusion) that the Obama Administration advanced in its blind march to adopt the CPP.

C. The Proposed CPP Repeal Rule Does Not Address All Concerns Over the Scope of EPA’s Authority to Imposed Existing Source Performance Standards for GHGs at Electric Generating Units.

In the present action, the U.S. EPA specifically invited comment as to whether the Proposed CPP Repeal Rule, by substantially diminishing the potential economic and political consequences of any future regulation of CO₂ emissions from existing fossil fuel-fired EGUs, has the advantage of not implicating the “clear statement” rule, in that it would avoid potentially transformative economic policy, and political significance in the absence of a clear congressional statement of intent to confer such authority on the Agency. 82 Fed. Reg. at 48042.

While the Proposed CPP Repeal Rule fixes several errors on the jurisdictional justification U.S. EPA used to promulgate the CPP, these fixes do not address all problems with the CPP. For example, the Proposed Rule does not address EPA’s erroneous conclusion that it has authority to regulate GHGs under section 111 of the CAA. Further complications arose in the CPP from EPA’s erroneous attempt to regulate natural gas and coal fired EGUs under the same standards. Any future rulemaking of EGUs under section 111 must not only avoid generation shifting and the imposition of requirements beyond the source itself to avoid violation of the “clear statement” rule. It must avoid extending EPA’s jurisdiction beyond that established by Congress. This includes avoiding undue influence on the nation’s generation mix and energy markets, even in forms that come through standards applicable at the source level.

D. The CPP Unlawfully Abrogates Authority Granted to the States by the Clean Air Act and FERC under the Federal Power Act.

In the proposed action, the U.S. EPA has specifically invited comment as to whether the CPP exceeded the proper role and authority of the Agency by regulating aspects of the nation's energy sector that are within the proper jurisdiction of the States and FERC. 82 Fed. Reg. at 48042. The CPP exceeded EPA's authority in both of these regards.

As addressed above, section 111(d) grants the authority to establish standards of performance for existing sources to the States—not to U.S. EPA. CAA § 111(d)(1). Under section 111(b), U.S. EPA is empowered to adopt “regulations ... establishing *Federal* standards of performance for new sources.” (emphasis added). In contrast, under section 111(d), U.S. EPA's authority is limited to adopting a “procedure” under which “*each State* shall submit to [EPA] a plan which ... establishes standards of performance for any existing source,” and to “prescrib[ing] a plan for a State in cases where the State fails to submit a satisfactory plan.” *Id.* § 111(d)(1), (2) (emphasis added). As U.S. EPA admits, the CPP forbids the States to impose emission standards that are less stringent than EPA has mandated through the national performance rates. 80 Fed. Reg. at 64,870. By establishing a minimum requirement for emission standards that are to imposed by the States and then leaving only the work of implementation for the States, EPA has unlawfully rewritten the statutory text in which Congress expressly gave only to the States the authority to “*establish[]* standards of performance.” CAA § 111(d)(1) (emphasis added).

“[T]he regulation of utilities is one of the most important of the functions traditionally associated with the police power of the States,” *Ark. Elec. Coop. Corp. v. Ark. Pub. Serv. Comm'n*, 461 U.S. 375, 377 (1983), which the Supreme Court has specifically recognized should not be “superseded” “unless that was the clear and manifest purpose of Congress.” *Pac. Gas &*

Elec. Co. v. State Energy Res. Conservation & Dev. Comm'n, 461 U.S. 190, 206 (1983)

(“PG&E”). Under the Federal Power Act, “the States retain their traditional responsibility in the field of regulating electrical utilities for determining questions of need, reliability, cost, and other related state concerns.” *Id.* at 205. Other aspects, including electric utilities engaged in interstate commerce, including wholesale sales, transmission of electric energy in interstate commerce, and reliability that fall outside regulation by the States, lies within the jurisdiction of FERC. 16 U.S.C. §§ 824-824w.

To meet the CPP’s arbitrary emission reduction standards, States will be compelled to enact legislation and regulations restructuring their power generation and distribution systems, decommissioning coal-fired plants, and granting regulatory and siting approval to new, renewable energy projects. Even if the CPP’s demand that States take these actions were constitutional, EPA may not make these “decision[s] of the most fundamental sort” for the States without clear authorization from Congress. *Gregory v. Ashcroft*, 501 U.S. 452, 460 (1991).

“Although the Constitution grants broad powers to Congress, our federalism requires that Congress treat the States in a manner consistent with their status as residuary sovereigns and joint participants in the governance of the Nation.” *Alden v. Maine*, 527 U.S. 706, 748 (1999). Among the powers that the Constitution denies to the federal government is the power to “use the States as implements of regulation”—in other words, to commandeer them to carry out federal law. *New York v. United States*, 505 U.S. 144, 161 (1992).

The CPP violates this anti-commandeering principle by forcing the States and state officials to exercise their sovereign powers to revamp their utility sectors to comply with EPA’s unilateral dictates. Under the CPP, the state actors will be the ones to account for the CPP’s impact on electric reliability, 40 CFR § 60.5745(a)(7), through such means as “[public utility

commission] orders,” 80 Fed. Reg. at 64,848, and “state measures” that make unregulated renewable energy generators “responsible for compliance and liable for violations” if they do not fill the gap, 40 CFR § 60.5780(a)(5)(iii). Even under a federal implementation plan, state agencies will have to be involved in decommissioning coal-fired plants, addressing replacement capacity, addressing transmission and integration issues, and undertaking all manner of related regulatory proceedings. *See* 80 Fed. Reg. at 64,678. In fact, EPA’s proposed federal plan expressly relies on state authorities to address reliability issues caused by the CPP. 80 Fed. Reg. at 64,981.

Just as the federal government may not commandeer the States to carry out federal policy, it also may not coerce them to the same end by denying them “a legitimate choice whether to accept the federal conditions.” *Nat’l Fed. of Indep. Bus. v. Sebelius*, 132 S. Ct. 2566, 2602 (2012) (Roberts, C.J.) (plurality opinion); *see also id.* at 2659 (Scalia, Kennedy, Thomas, and Alito, JJ., dissenting). The CPP violates this anti-coercion doctrine by threatening to disrupt the electric systems of the States that do not carry out federal policy. If a State declines to implement the CPP, EPA will impose a federal plan that does so. 40 CFR § 60.5720. But because the CPP’s aggressive emission rates cannot be achieved by operating fossil fuel-fired sources under existing technology,, the States will have to force fossil fuel-fired sources to transfer generation to other sources; the only alternative will be for fossil fuel-fired sources to shut-down, which will result in electricity shortfalls and the associated consequences for state services and operations, public health and safety, and the economy. The CPP places the States in an untenable position.

The entire point of the CPP is to force the States to compel fossil fuel-fired sources to transfer generation to renewable sources. The States would not compel such transfer of

generation absent the CPP's coercion. EPA has no authority under the CAA to engage in such coercion. Moreover, EPA's attempts to control interstate electricity transmission and regulate to the detriment of grid reliability invade the exclusive jurisdiction of FERC.

E. The U.S. EPA Should Immediately Review and Rescind the 2009 Endangerment Finding and Legal Memoranda.

1. The U.S. EPA Continues to Lack Authority to Regulate CO₂ Under Section 111 Because It Has Not Made (And Cannot Make) the Statutorily-Required Endangerment and Significant Contribution Findings.

Regulation of a stationary source category under CAA section 111 must be predicated upon the agency's finding that: (1) emissions of the regulated air pollutant "may reasonably be anticipated to endanger public health or welfare"; and (2) the continued emission of the air pollutant "contributes significantly" to that endangerment. 42 U.S.C. § 7411(b)(1)(A).⁹ Without both of these findings, the category of stationary sources cannot be subject to new source regulations for emissions of that pollutant or, consequently, subject to existing source emission regulations for that pollutant. Nevertheless, the Obama Administration attempted to implement the CPP—a regulation of a new pollutant (CO₂) from a new source category (fossil fuel-fired electricity generating units or EGUs)—without attempting to make either the required endangerment finding or the required significant contribution finding. Fortunately, the stay by the Supreme Court prevented formal implementation. It nonetheless triggered numerous power plant retirements in expectation of its implementation.

The CPP was the center piece of the Obama's Administration's "War on Coal" even though it did not and could not put together an endangerment finding (much less a significant

⁹ While both the endangerment finding and the significant contribution finding language comes from CAA section 111(b), this language is clearly linked to the listing of categories of stationary sources, which is the requisite for regulation under both section 111(b) and section 111(d). Thus, Murray Energy refers to these required findings as the section 111 findings.

contribution finding) that correlated CO₂ emissions from fossil fuel-fired EGUs with recognizable dangers to domestic public health and welfare. The present action is the appropriate mechanism by which the U.S. EPA should now correct the Obama Administration's error.

Proponents of the CPP might point out that the Obama Administration did manage to make an endangerment finding under CAA section 202(a)(1) as respects transportation sources. See 74 Fed. Reg. 66,496 (Dec. 15, 2009). But that endangerment finding is irrelevant to this rulemaking because it does not satisfy the requisite findings for section 111 regulation for EGUs. First, section 111 requires a specific finding that the proposed source category subject to regulation “contributes *significantly*” to the endangerment. 42 U.S.C. § 7411(b)(1) (emphasis added). The endangerment finding alone is not sufficient to regulate under CAA section 111, and an endangerment finding under CAA section 202(a)(1) does not include a significant contribution finding; it merely requires that the agency finds that air pollution from motor vehicles “cause or contribute to,” the endangerment. See 42 U.S.C. § 7521(a)(1). Thus, even if the section 202(a)(1) endangerment otherwise supported section 111 regulation—which, as provided below, it does not—the U.S. EPA would need to make an additional significant contribution finding in order to promulgate section 111 regulations. The U.S. EPA did not make, still has not made, and cannot factually support a significant contribution finding for CO₂ emissions from fossil fuel-fired EGUs. Thus, the statutory prerequisite to promulgate the CPP was never met.

A second reason that the section 202(a)(1) endangerment finding did not satisfy the statutory prerequisite for promulgating the CPP is because section 111 requires a finding that the regulated pollutant from *the specific source category sought to be regulated* “may reasonably be

anticipated to endanger public health.” 42 U.S.C. § 7411(b)(1)(A). The section 202(a)(1) endangerment finding did not address CO₂ from fossil fuel-fired EGUs. By the U.S. EPA’s own wording, during section 202(a)(1) finding, the agency merely set out “to determine if emissions of the well-mixed greenhouse gases *from CAA section 202(a) source categories* contribute to the air pollution that endangers public health and welfare.” 74 Fed. Reg. at 66,499 (emphasis added). The U.S. EPA did not determine in that finding whether any emissions from fossil fuel-fired EGUs contributes significantly to air pollution reasonably anticipated to endanger public health or welfare. This is an important distinction that leaves the section 202(a)(1) endangerment finding irrelevant to the agency’s authority to promulgate section 111 regulations. The agency simply did not possess authority for section 111 regulation based on the section 202(a)(1) endangerment finding.

In finalizing the CPP repeal in Docket ID No. EPA-HQ-OAR-2017-0355 and in the present action, the U.S. EPA now has before it a simple task of determining that the lack of a section 111 endangerment finding renders the CPP contrary to “the policy of the United States that necessary and appropriate environmental regulations comply with the law.” *See* Executive Order 13783, at § 1(e).

2. EPA’s Legal Memoranda Should Also Be Rescinded In Their Entirety.

The Legal Memoranda comprise over 200 pages of erroneous legal analysis used by EPA to support the CPP’s improper jurisdictional overreach and minimize the legal and technical hurdles posed by the Clean Air Act, years of case law, and the numerous petitions and comments or parties who sought to limit the agency to its jurisdictionally proper role. EPA has correctly identified several key flaws in the Legal Memoranda related to their defense of an interpretation of the Clean Air Act that is inconsistent with its plain text, the structure and purpose of the Act,

Congressional intent, and the Agency's prior regulatory actions. These are not the only flaws in the Legal Memoranda, however. These same memoranda support the violation of the section 112 exclusion supported by the CPP, the interference with State and FERC jurisdiction over the power sector, as achieved by the CPP, and the regulation of GHGs and fossil-fuel fired EGU's in the absence of a proper endangerment finding. The Legal Memoranda are not based on sound legal analysis and do not reflect the current views of the Administration. They should, therefore, be rescinded in their entirety.

To the extent the Agency believes any portion of the Legal Memoranda accurately reflect the Agency's current position, the Agency should restate those positions in a separate legal memorandum. This is the only way to make clear what positions have been rescinded and what positions are supported by the Agency. To do otherwise will cause confusion as to which conclusions remain in effect, which have been specifically rescinded, and which can no longer be considered viable because they depended in whole or in part on logic, policy, or reasoning reflected in those portions that have been rescinded.

3. Even If The 2009 Endangerment Finding Could Serve As The Requisite For Section 111 Regulation of EGUs, The Finding Is Severely Biased, Not Supported By Sound Scientific Evidence And Highly Speculative.

Even if the section 202(a)(1) endangerment finding could serve as the requisite for section 111 regulation, repeal of the CPP should still be based on the factual and procedural shortcomings of that finding. A clear procedural flaw of the finding is that the proposed finding was never submitted to the Science Advisory Board for peer review as statutorily required. This flaw has been fully drawn out by the Texas Public Policy Foundation in its reconsideration petition (Appendix A herein) filed on behalf of seven petitioners. Murray Energy, as part of these Comments, fully adopts the reasoning therein by reference and inclusion in Appendix A.

The agency's failure to make its own judgment is another procedural flaw of the section 202(a)(1) endangerment finding. The CAA requires that U.S. EPA exercise its own judgment in promulgating the endangerment finding.¹⁰ This necessarily entails that the agency create a record and then, in its own judgment, articulate whether danger to public health and welfare is anticipated. As part of the section 202(a)(1) endangerment finding, the agency did not exercise its own judgment. Instead, it simply adopted as its own determination the findings by a select number of other organizations, most notably the finding of the U.N. Intergovernmental Panel on Climate Change (IPCC). *See, e.g.,* Technical Support Document, *Endangerment and Cause or Contribute Findings for Greenhouse Gases under Section 202(a) of the Clean Air Act*, Doc. No. EPA-HQ-OAR-2009-0171-0137, at 6. In promulgating the endangerment finding, the U.S. EPA all but admitted that it had not exercised its own judgment. *See* 74 Fed. Reg. at 66,511 (“[T]he Administrator is placing primary and significant weight on these assessment reports in making her decision on endangerment.”). The problems with the U.S. EPA's adoption of the findings of others as opposed to exercising its own judgment has been well-documented, *see generally* the State of Texas Petition for Reconsideration¹¹, and the U.S. EPA Administrator himself has acknowledged¹² this procedural shortcoming of the finding.

¹⁰ This is true for endangerment findings required under section 111 or section 202(a)(1). *See* 42 U.S.C. § 7411(b)(1) (“The Administrator . . . shall include a category of sources in such a list [of categories of stationary sources] *if in his judgment* it causes, or contributes significantly to, air pollution which may reasonably be anticipated to endanger public health or welfare.” (emphasis added)); *id.* § 7521(a)(1) (“The Administrator shall by regulation prescribe . . . standards applicable to the emission of any air pollutant from any class or classes of new motor vehicles or new motor vehicle engines, which in his judgment cause, or contribute to, air pollution which may reasonably be anticipated to endanger public health or welfare.” (emphasis added)).

¹¹ This petition can be viewed at:

https://www.epa.gov/sites/production/files/2016-08/documents/petition_for_reconsideration_state_of_texas.pdf.

¹² In an interview with Time Magazine, Administrator Pruitt stated that in promulgating the 202(a)(1) endangerment finding, the U.S. EPA “took work product of the U.N. Intergovernmental Panel on Climate Change and adopted it, and transferred it to this agency.” The full interview can be found at: <http://time.com/4998279/company-man-in-washington/>.

To be sure, the IPCC report could have been part of the record that the agency had decided to consider in exercising its own judgment. But the statute requires the agency itself, with its unique expertise, to exercise its own judgment and come to its own conclusions. In this case, borrowing conclusions from the IPCC report is particularly problematic, because the U.S. EPA should have made a determination as to whether domestic sources endangered domestic public health or welfare. This is not the task that the U.N. Intergovernmental Panel carried out, and the intent of Congress in enacting the CAA was circumvented when the U.S. EPA substituted conclusions from a non-U.S. entity for its own.

Finally, the section 202(a)(1) endangerment finding rested on significant factual errors. The assumptions the agency relied upon in finalizing that finding are increasingly being proven to be factually inaccurate. For example, we now have very credible data demonstrating that the models utilized by the U.S. EPA simply are not accurately predicting how CO₂ emissions affect the atmosphere. This undercuts the entire factual basis for the endangerment finding. And it is becoming progressively clearer that regulating CO₂ in the United States will have no discernable effect on the atmosphere or our climate, much less that such regulation would address endangerment of public health or welfare. These factual bases are described with legal and scientific detail in the documents attached to these Comments as Appendix B (U.S. House Committee on Science, Space & Technology Testimony of Professor of Atmospheric Science John R. Christy of the University of Alabama, March 29, 2017) and Appendix C (the Competitive Law Institute's Petition to the U.S. EPA, including additional testimony by Prof. Christy). These Comments hereby incorporate, by reference and by inclusion in the appendices, the legal and factual bases set out in those documents. The tenuous factual support for the 202(a)(1) endangerment finding provides even further evidence that the agency should support

its CPP Repeal on the additional ground that no fact-based endangerment finding has been promulgated to provide the authority for the CPP.

Attached as Appendix D and incorporated herein by reference is the recent report prepared by Dr. Roy W. Spencer – “Analysis of the Scientific Underpinnings Of The EPA Endangerment Finding and Clean Power Plan” (February 13, 2018). Dr. Spencer is a Principal Research Scientist at the University of Alabama in Huntsville where he directs a variety of climate research projects. Dr. Spencer received his Ph.D. in Meteorology from the University of Wisconsin in 1981, and was formerly a Senior Scientist for Climate Studies at NASA’s Marshall Space Flight Center. Dr. Spencer is the U.S. Science Team Leader for the AMSR-E instrument flying on NASA’s Aqua satellite, which monitors global sea ice conditions, sea surface temperatures, precipitation, and other climate variables. Together with Dr. John Christy, Dr. Spencer is co-developer of the original satellite method for precise monitoring of global temperatures from Earth-orbiting satellites, for which he was awarded NASA’s Medal for Exceptional Scientific Achievement, and the American Meteorological Society’s Special Award. Dr. Spencer has testified in both houses of the U.S. Congress several times on global warming-related subjects. His climate-related publications have emphasized the measurement of precipitation and temperature from space, as well as methods for using satellites to diagnosis climate feedbacks for the purpose of estimating climate sensitivity, hurricane intensity, and extratropical storm strength. (Appendix D, p. 3).

Based on his detailed analysis of the 2009 Endangerment Finding, Dr. Spencer concludes that the scientific “claims” asserted by the U.S. EPA in its Endangerment Finding are severely biased, and not supported by a significant body of peer reviewed and published evidence. Some of the claims verge on pure speculation, others are exaggerated, and overall a large body of

published scientific work was simply ignored. Additionally, newly published information since the 2009 Endangerment Finding also suggest a reassessment is in order. The 2009 Endangerment Finding should be reconsidered in light of new evidence and the procedural and factual shortfalls of the 2009 Endangerment Finding. No new CPP rule should be promulgated absent this review of all available scientific evidence. (*Id.*, pp. 4, 52-53).

Initially, Dr. Spencer confirms the concerns addressed above that the U.S. EPA improperly relied on the UN Intergovernmental Panel on Climate Change (IPCC) rather than on independent peer-reviewed evidence. The IPCC is composed of bureaucrats from the world's nations who used like-minded scientists to support the IPCC's goal of reducing CO₂ emissions. Scientists who did not share that goal were excluded from the process. The IPCC ignored alternative, natural explanations of climate change and the role of natural, internally-driven climate cycles. (*Id.*, pp. 5-6).

In his Analysis, Dr. Spencer addresses the fundamental concepts of energy balance in temperature change and the two different classes of energy imbalance which can cause climate change. He addresses each of the principal scientific "claims" asserted by the U.S. EPA in its 2009 Endangerment Finding and criticizes a number of the fundamental claims asserted in each of four (4) classes, including observed trends and effects in GHGs and supposedly "modeled" projections of future climate changes. (*Id.*, pp. 7-8).

Dr. Spencer first addresses the important concept of "energy balance" which is fundamental to understanding climate change due to any cause. There are two general classes of energy balance in the environment – radiative and non-radiative. An example of radiative energy balance is the balance between absorbed sunlight and thermally-emitted infrared (heat) radiation which is how the climate system naturally emits energy and cools itself to outer space.

In contrast, an example of non-radiative energy balance is the El Nino and La Nina phenomena, where the average rates of energy transport between the atmosphere and ocean are temporarily altered and involve natural changes in the transports of heat between the atmosphere and ocean. Significantly, the IPCC improperly emphasizes radiative energy balance while largely ignoring non-radiative energy balance. The IPCC improperly focuses on “external” radiative forcing, including anthropogenic forcing, while ignoring non-radiative forced energy imbalance, that is the natural changes in ocean vertical circulation. (*Id.*, pp. 9-13). Dr. Spencer concludes:

This issue is important because, as we shall see, the energy imbalance associated with climate change is exceeding small (around 1%) and not computable from physical first principles, not observable from even our best surface and satellite measurement systems, and capable of occurring through natural processes alone, thus causing natural climate change. (*Id.*, p. 10; emphasis added).

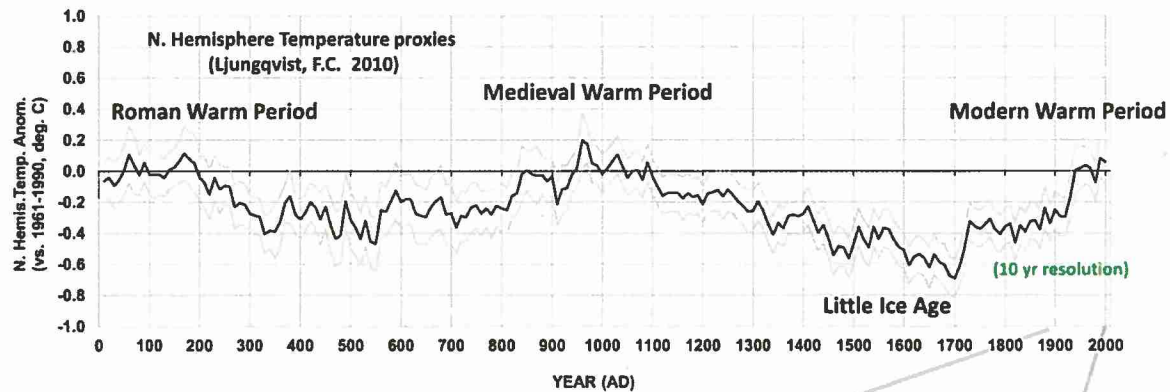
Concerning the U.S. EPA’s claims of observed trends in CO₂ concentrations in the atmosphere, Dr. Spencer concludes, even if true, CO₂ still represents only 0.04% of the earth’s atmosphere. This tiny component, on the other hand, is nevertheless necessary for life to exist on Earth, since photosynthesis on both land and in the ocean is necessary for the food chain. Furthermore, no matter how much CO₂ humanity produces, an average of 50% of it is removed by nature each year. (*Id.*, pp. 15-16).

Dr. Spencer takes particular issue with every one of the U.S. EPA’s claims concerning observed effects associated with global elevated concentrations of GHGs. (*Id.*, pp. 17-36). In summary terms, there is no scientific basis for U.S. EPA to assert that climate change is more due to GHG emissions than to natural cycles in the climate system.

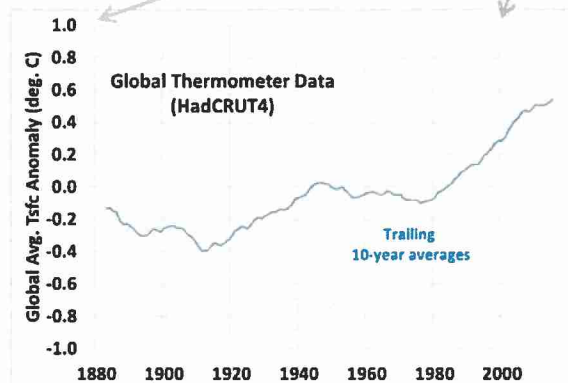
First, Dr. Spencer observes that compared to the approximate 240 W/m² average rates of energy flows, the U.S. EPA asserted 0.6 to 2.4 W/m² imbalance amounts to 0.25% to 1% of

average flows. But even a 1% global radiative balance cannot be reproduced by climate models from physical first principles alone, so the supposed GHG-imposed imbalance is below what climate models can resolve from physical first principles. Instead, models must be “tuned” to produce an assumed energy balance (i.e. assumed no natural climate change) and their tuning parameters are not well constrained. Nor can an anthropogenic energy imbalance be measured from our best satellite energy budget instruments. And even if one would accurately measure the Earth’s radiative energy imbalance, there is no way to determine how much is due to anthropogenic versus natural forcings. (*Id.*, pp. 17-18).

Second, any global warming since the mid-20th century, is fully consistent with the emergence from the Little Ice Age occurring from approximately 1400 AD to 1700 AD and not inconsistent with past warming cycles in the Roman Warm Period from approximately 0 AD to 200 AD or the Medieval Warm Period from approximately 850 AD to 1100 AD. (*Id.*, p. 19-20). The chart below indicates global warming is consistent with prior climate change cycles.



**It is Not Obvious
That Recent Warming
Is Outside the Range
Of Natural Temperature
Variations of the Last
2,000 Years**



Third, there is no solid basis to attribute recent warming to anthropogenic GHG concentrations. As Dr. Spencer concludes:

There is no way to know just how much of recent warming was due to the observed increase at atmospheric CO₂. The primary IPCC climate model simulations regarding natural forcing alone were with changes in total solar irradiance, stratospheric ozone depletion, and volcanoes. Clearly, this is insufficient; there are many more potential sources of natural climate change. For example, indirect solar effects on global cloudiness; natural, and especially unforced, (non-radiative) fluctuations in the climate system which can also change the global energy balance. So, once again we are presented in the claim with a statement of faith, an argument from ignorance. (*Id.*, pp. 21-22).

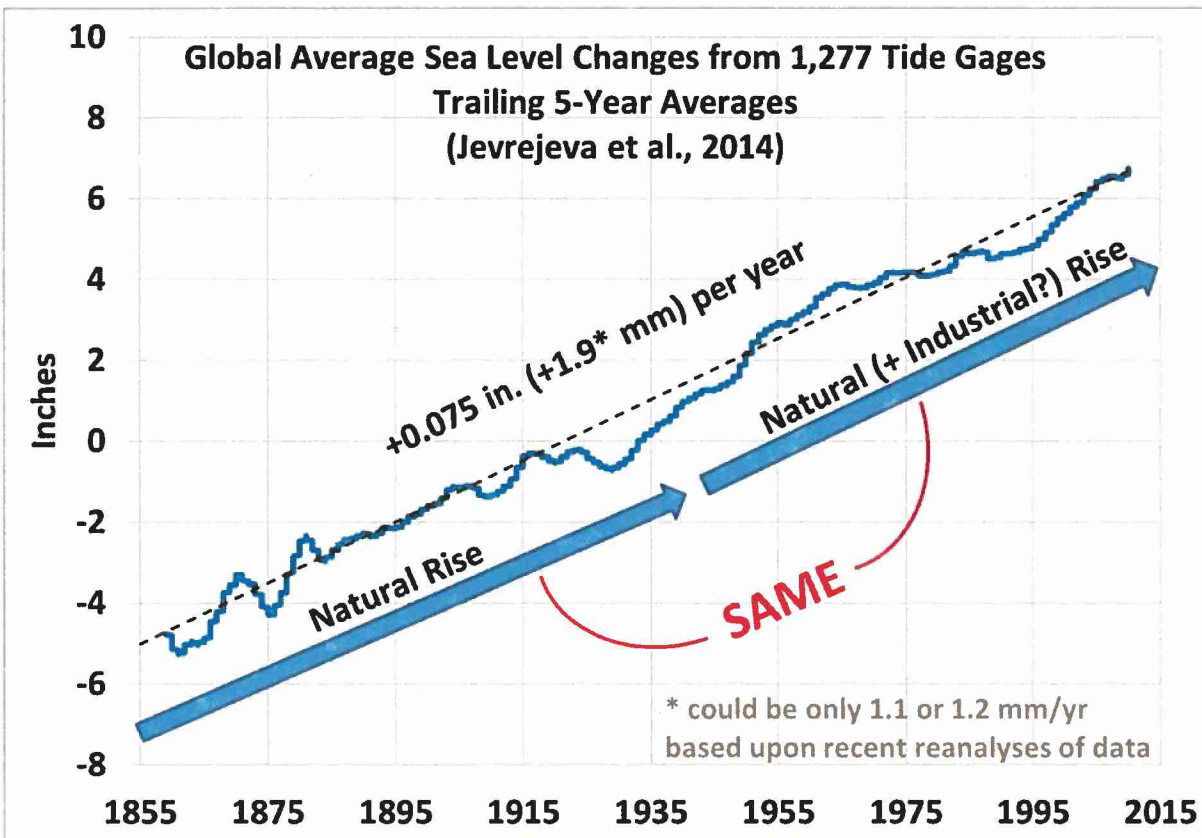
Fourth, the U.S. EPA failed to distinguish between GHG concentration effects and Urban Heat Island effect. Dr. Spencer concludes:

While the U.S. has likely warmed in recent decades, there is now evidence that as much as half of the warming could be spurious, due to the Urban Heat Island (UHI, e.g. Oke, 1995) effect. When only the most pristine stations in the U.S. are analyzed – that is, those with the least amount of manmade structures and spurious heat sources encroaching upon the thermometer sites – the rate of warming is considerably reduced compared to official NOAA estimates (Watts et al., 2015). This also raises questions about warming trends reported in other land areas of the globe as well.

Furthermore, unstated in the claim is that most of the concern for human activities and agriculture would be warming during the summer months (June – July – August), not winter. As can be seen in official NOAA data, warming during the summer in the U.S. has been weaker than in the annual average temperatures, with a warming trend of only +0.11 deg. F/decade (+0.06 deg. C/decade): (*Id.*, p. 22).

Fifth, contrary to the U.S. EPA claim, there is no demonstrative correlation between sea level changes and GHG emission. Dr. Spencer concludes:

There are a number of points which must be made regarding sea level rise. The first is that, based upon global tide gage data produced by Jevrejava et al. (2014), sea level has been rising since well before human-caused GHG emissions could be blamed (data from <http://www.psmsl.org/products/reconstructions/gslGPChange2014.txt>):



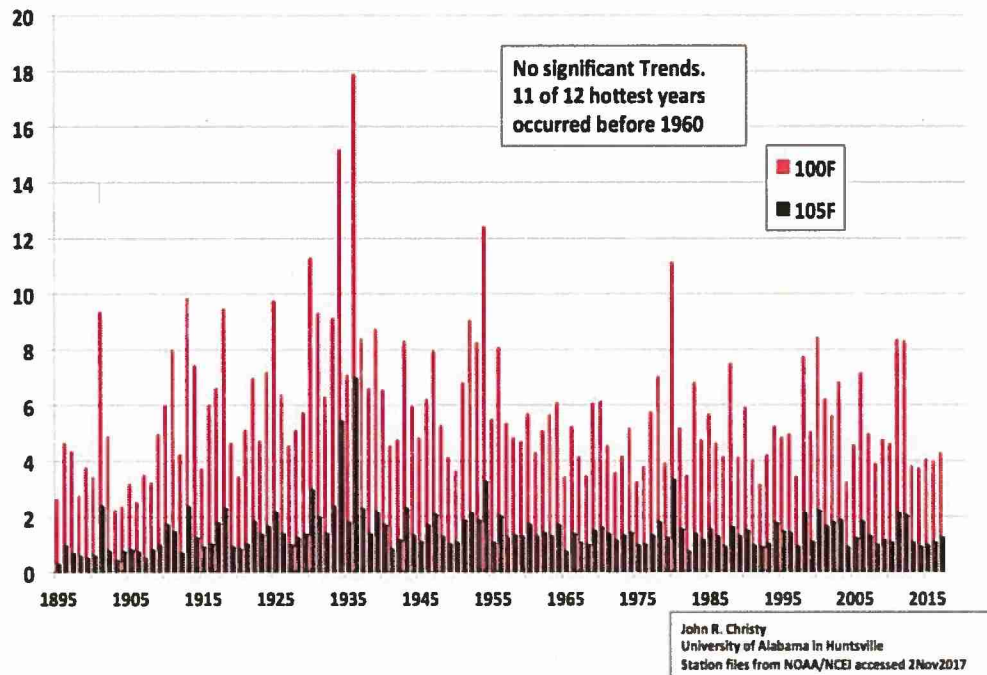
Thus, the claim deceptively excludes the possibility that recent sea level rise is mostly natural.

Importantly, there has been no obvious acceleration of sea level rise during the period of greatest greenhouse gas emissions (generally after the 1940s), as might be expected. In other words, as far as we know, sea level has been rising as we have been coming out of the Little Ice Age. (*Id.*; p. 26).

Finally, the U.S. EPA's claim that there have been widespread changes in extreme temperatures in the last fifty years is a gross exaggeration. Dr. Spencer concludes:

At a minimum, the claim is a gross exaggeration. Regarding the U.S., the main concern would be excessive heat (since less excessive cold would be a welcome thing). For 1,114 USHCN stations in the United States, here are the average numbers of days each year that a station exceeded 100 deg. F and 105 deg. F temperatures, from 1895 through 2017, as tabulated from official NOAA data by John Christy (UAH):

Average per station (1114 USHCN Stations) 1895-2017
Number of days daily Maximum temperature above 100°F and 105°F



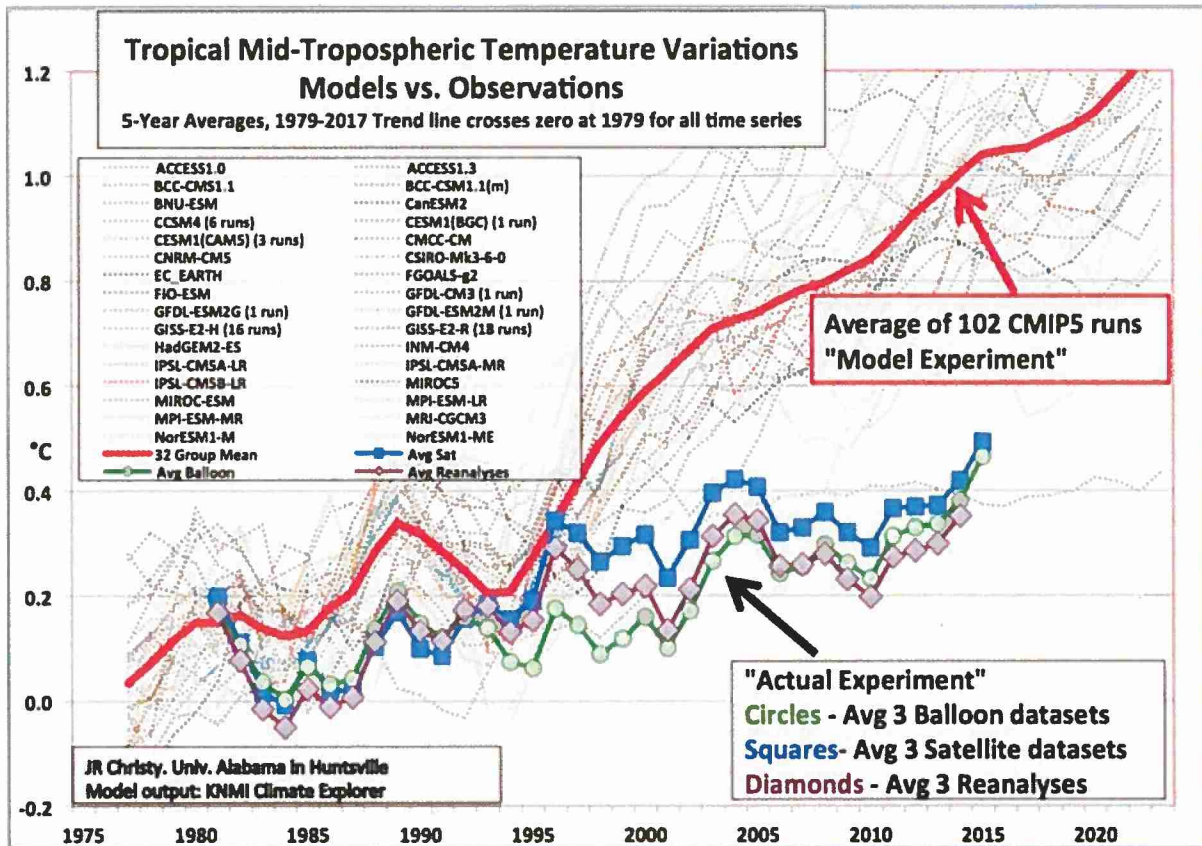
As can be seen, there is no obvious trends in very hot days, which would be the main concern. In fact, 11 of the 12 years with the largest number of very hot days occurred before 1960.

As previously explained, I have concern that all land-based thermometer data have spurious warming effects from manmade structures replacing natural vegetation, and active heat sources, leading to an Urban Heat Island (UHI) effect. It is not clear how well this has been adjusted for, and there is evidence that in the U.S. warming in recent decades has been exaggerated by as much as a factor of 2 (Watts et al., 2010). (*Id.*, p. 31).

Concerning the last two classes of U.S. EPA claims made in the 2009 Endangerment Finding – projections of future climate change and effects – these claims are not based on observational evidence but rather are based purely on projections of future climate change states based on climate modeling. Based on recent information, this modeling has proved biased, exaggerated and faulty. (*Id.*, at pp. 37-52). Dr. Spencer concludes:

There is now a great deal of published evidence that the amount of future warming projected by the models will be too large. The claim, rephrased, is that warming in the 21st Century will accelerate, that is, the rate of warming will be greater than in the 20th Century.

But, to date, the models have produced approximately twice the amount of atmospheric warming as has been observed since 1979, which is when we have had our first capability to monitoring the tropospheric temperature over virtually the entire Earth:



Out of 102 IPCC model experiments (upon which the EPA's Endangerment Finding depends), only one model came close to the observations (whether satellites, weather balloons, or global reanalysis datasets), with almost all others warming significantly more than the observations. This is an apples-to-apples comparison, with the model (and all observations) vertical temperature structures averaged in the same way that the satellite senses the atmosphere. Each time series is placed vertically on the graph so that their linear trends intersect at "0" in 1979, which is the most meaningful way to compare these various measures in a climate change context.

How can the models' future projections for the rest of the 21st Century be trusted, when they have failed to reproduce what has already occurred? (*Id.*, pp. 37-38).

Based on the Analysis, Dr. Spencer concludes:

In conclusion, given:

(1) the lack of clear evidence that recent climate system changes, to the extent they exist, are outside the realm of natural variability;

(2) evidence that increasing levels of atmospheric CO₂ benefit global photosynthesis and crop productivity;

(3) the inability of climate models to reproduce the recent weak levels of atmospheric warming since 1979;

(4) the inability of climate models to approach energy balance without *ad hoc* tunings;

(5) the current lack of understanding of key physical processes necessary to predict climate changes with models (e.g. cloud feedbacks, changes in precipitation efficiency); and

(6) the demonstrably biased, alarmist, and misleading ways in which the science claims underpinning the Endangerment Finding were made in the Technical Support Document, I conclude that there is sufficient reason for the EPA to revisit the Endangerment Finding, and to not replace the Clean Power Plan until such a time that a much more balanced analysis of all of the available scientific evidence, including the potential benefits of more atmospheric CO₂ and modest warming, is undertaken. (*Id.*, pp. 52-53).

IV. CONCLUSION

Murray Energy applauds President Trump's Executive Order 13783 and enthusiastically supports the U.S. EPA's proposed repeal of the Obama CPP in Docket Id No. EPA-HQ-OAR-2017-0355. The 2009 Endangerment Finding (and the Legal Memoranda) should be abrogated in their entirety. There is no basis in the CAA to reorder generation sources or compel compliance measures that cannot be achieved on a reasonable and cost effective basis. The States should retain maximum flexibility to establish and apply performance standards and to

take into consideration such factors as the existing generation portfolio, remaining useful life (“RUL”) of existing facilities and achievable and cost effective controls to preserve the State’s coal-fired generation resources and protect against premature retirement of valuable energy production facilities.

Even though the U.S. EPA has identified a clear reason to repeal the CPP in its CPP Repeal Action, Murray Energy contends that the U.S. EPA must correct these additional errors and repeal the CPP on broader grounds for two significant reasons. First, President Trump’s Executive Order is clear that important policy of U.S. dictates that environmental regulations “comply with the law.” The agency will not have addressed the Executive Order’s directive to “review all existing regulations, orders, guidance documents, policies, and other similar agency actions” for compliance with the law if it allows clear agency errors to stand. Unlawful decisions to regulate fossil fuel-fired generating units under CAA section 111(d) despite existing regulations under CAA section 112 and despite a failure to make the statutorily-required requisite findings simply cannot stand in light of the President’s Executive Order.

Second, these additional errors do not only require repeal of the existing rule, they also dictate that new regulations of CO₂ emissions at fossil fuel-fired EGUs under CAA section 111(d) cannot be legally promulgated. Now is the time for the U.S. EPA to correct clear jurisdictional errors that would negate the efforts to engage in future fruitless rulemaking efforts.

While we recognize that the U.S. EPA is properly considering repeal of the Obama Clean Power Plan, we respectfully remind the U.S. EPA that much more needs to be done to follow through on promises made for coal-fired generation, coal production, and coal mining jobs. The actions which are within U.S. EPA’s power to accomplish must include:

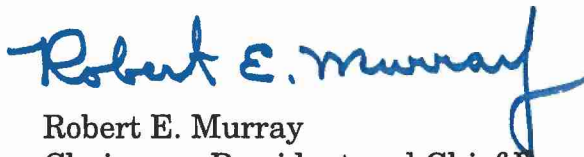
1. Repealing EPA’s “Endangerment Finding” for greenhouse gases under Section 202(a) of the Clean Air Act;

2. Repealing EPA's New Source Performance Standards for Greenhouse Gas Emission for coal-fired electric utility generating units and updating the New Source Performance Standard for coal to be based upon High Efficiency Low Emitting (HELE) plant technology retrofit with back-end pollution control equipment;
3. Repealing or revising New Source Review that eliminate applicability related to investments to improve plant efficiency.
4. Eliminating the "Effluent Limitations Guidelines and Coal Combustion Residuals Rules" which threaten to close numerous coal-fired power plants;
5. Requiring compliance with Section 321(a) of the Clean Air Act to fully consider the job loss and shifts of employment caused by its regulations;
6. Updating the Supreme Court-ordered cost justification related to the Mercury and Air Transport Rule to determine whether the mandated chlorine reductions are economically justified or should be removed;
7. Overturning the recently enacted "Cross-State Air Pollution Update Rule"; and recently-promulgated ozone regulations; and
8. Ending the electric utility "Maximum Achievable Control Technology" standards.

On behalf of Murray Energy, and its ownership, management, and employees, we respectfully submit these comments.

Sincerely,

MURRAY ENERGY CORPORATION



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